

Application No.: 10/672554

Case No.: 58753US002

**REMARKS**

Claims 29 to 47 are cancelled without prejudice in the current amendment. Applicant reserves the right to pursue the subject matter of these claims in another application.

Claims 1 and 25 are currently amended. The amendments are fully supported by the specification and add no new matter to the application. The wavelength of actinic radiation is supported, for example, on page 25, line 19 to page 26, line 9. The lack of absorption in the recited wavelength range of other components in the composition is supported, for example, by the examples as well as page 22, lines 1 to 13.

Claims 1 to 28 are pending.

**Provisional Double Patenting Rejection**

Claims 1-16, 22-24, 29-32, and 34 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-17, 21-24, 26-27, 33-38, and 39 of copending Application No. 10/672,762 in view of Shimda et al. (JP 2002-341519). If this rejection is not withdrawn, Applicant agrees to submit a terminal disclaimer based on this copending application once the pending claims are allowed.

Claims 1-6, 22-24, and 29-33 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 6, 8-10, 2-15, 8, and 20-24 of copending Application No. 10/672,714 in view of Shimda et al. (JP 2002-34519). If this rejection is not withdrawn, Applicant agrees to submit a terminal disclaimer based on this copending application once the pending claims are allowed.

Claims 1-16 and 22-23 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-19 and 21 of copending Application No. 10/847,523 in view of Shimda et al. (JP 2002-34519). If this rejection is not withdrawn, Applicant agrees to submit a terminal disclaimer based on this copending application once the pending claims are allowed.

Application No.: 10/672554

Case No.: 58753US002

**Rejections based on 35 U.S.C. § 102/103**

Claims 1-7, 4, 17-19, and 21-24 were rejected as anticipated by or, in the alternative, obvious over Shimda et al. (JP 2002-341519, hereinafter "JP '519"). Applicant respectfully submits that the pending claims are not anticipated by or obvious over this reference.

JP '519 provides a polymerization initiator that includes (a) a compound of formula (I)  $R-SO_2-M^+$  where R is an alkyl or aryl, and  $M^+$  includes cations chosen from sulfonium, iodonium, diazonium, ammonium, and horse mackerel NIUMU; and (b) a light-and-heat conversion agent. The light-and-heat conversion agent absorbs light resulting in the generation of heat. The heat then causes the decomposition of the compound of formula (I) resulting in the formation of a radical that can initiate the polymerization reaction.

Applicant agrees with the Examiner's statement in the office action (see Response to Arguments, paragraph 13 of Office Action dated July 26, 2005) that this reference teaches a light-to-heat conversion agent (B) that is an infrared absorbing dye or pigment having an absorption maximum at 760 to 1200 nanometers. Thus, this reference does not disclose a composition that is free of additional components that absorb actinic radiation in the range of 400 to less than 1000 nanometers.

The light-to-heat conversion agent is a key component of the compositions of JP '519. The polymerization reaction disclosed in this reference is based on the absorption of infrared radiation to heat the sample. The polymerization reaction is thermally initiated. In contrast, the present invention does not include such a light-to-heat conversion agent. There would be no motivation to remove the light-to-heat conversion agent from the compositions disclosed in JP '519 because there is not teaching or suggestion that a polymerization reaction could be initiated in its absence.

Thus, independent claims 1 and 25 are not disclosed or suggested by this reference. Applicant respectfully requests withdrawal the lack of novelty or, in the alternative, the obviousness rejection based on JP '519.

Application No.: 10/672554

Case No.: 58753US002

**Rejections based on 35 U.S.C. § 103**

Claims 11-13 and 15-16 were rejected as being obvious over JP '519 in view of JP 09-344110 (hereinafter "JP '110"). Applicant respectfully submits that the pending claims are not obvious over this reference.

As discussed above, the pending claims are not obvious over JP '519. JP '110 does not remove the deficiencies of JP '519. Rather, like JP '519, reference JP '110 discloses the use of a light-and-heat sensing element that absorbs actinic radiation in the range of 400 to 1000 nanometers. Thus, the combination of JP '110 and JP '519 does not teach or suggest a composition that is free of an additional component that absorbs in the range of 400 to 1000 nanometers. Applicant respectfully requests withdrawal of the obviousness rejections based on the combination of these references.

Claims 1-5, 11, 14, 17-19, and 21-24 were rejected as being obvious over Kawashima et al. (US 5,486,544 hereinafter "US '544") in view of JP '519. Applicant respectfully submits that the pending claims are not obvious over this reference.

US '544 discloses polymerizable compositions that include an arylsulfinate salt. As noted by the Examiner, there is no teaching of a triarylsulfonium salt in this reference. Although JP '519 teaches the combination of an arylsulfinate ion and a triarylsulfonium ion, the combination of references teaches that a dye or pigment would be needed to form an initiating radical. Such a dye or pigment absorbs actinic radiation in the wavelength range of 400 to 1000 nanometers. That is, the compositions in these references are not free of an additional component that absorbs actinic radiation in the range of 400 to 1000 nanometers, as recited in the pending claims.

Applicant respectfully requests withdrawal of the rejection based on the combination of US '544 and JP '519.

**Rejections based on 35 U.S.C. § 102**

Claims 25-28 are rejected as being anticipated by JP '519. Applicant respectfully submits that the pending claims are novel over this reference.

Application No.: 10/672554

Case No.: 58753US002

As discussed above, the pending independent claims recite that the composition is free of an additive (e.g., a dye or pigment) that absorbs actinic radiation in the range of 400 to 1000 nanometers. In contrast, JP '519 discloses the use of a light-and-heat conversion agent that absorbs actinic radiation in this wavelength range. Thus, JP '519 does not teach all the limitations of the independent claims. Applicant respectfully requests withdrawal of the rejections based on JP '519.

In view of the above, it is submitted that the application is in condition for allowance. Reconsideration of the application is requested. Allowance of claims 1-28, as amended, at an early date is solicited.

Respectfully submitted,

September 13, 2005 By: Jean A. Lown  
Date Jean A. Lown, Reg. No.: 48,428  
Telephone No.: 651-733-3169

Office of Intellectual Property Counsel  
3M Innovative Properties Company  
Facsimile No.: 651-736-3833